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EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/645,928	ELLIS ET AL.
	Examiner	Art Unit	
	Charles Chow	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *12 April 2006*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-26 and 55-72* is/are pending in the application.

    4a) Of the above claim(s) *27-54* is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-26,55-62 and 64-71* is/are rejected.

7) ☒ Claim(s) *63 and 72* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Detailed Action

1. This office action is for amendment received on 4/12/2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:
A person shall be entitled to a patent unless –

> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-4, 55-57, 59, 64-66, 68 are rejected under 35 U.S.C. 102(e) as being anticipated by Ellis et al. (US 2005/0229,213 A1).

Regarding **claim 1,** Ellis et al. (as Ellis hereafter) teaches an apparatus for processing multiple radio signals simultaneously { apparatus 17, the interactive television program guide equipment, has recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program 2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31 of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of continuously receiving a separate unrelated radio signal { at the same time for continuously processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least an <u>audio portion of every radio signal received by two radio receivers</u> for later output by selection of a user { at the same time recording from tuners to 15 [0088]; recording all

available audio in [0173]; the simultaneously recoding audio of TV program from two tuners

to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3] }; and

(c) a control module [40] having a programmable selection scheme to control functions

including received radio signals, stored radio signals and portions thereof, and an output of

the stored radio signals and portions thereof { the remote control 40 has programmable

control function keypads, for selecting channel to receive radio TV audio signal, for

recording via REC key, & output stored TV radio signal & portions using PLAY key for

playback in [0112, 0197]; playing back movie segment in [0180-0181] };

wherein a user can select a stored radio signal from the buffer in the storage module for

the output { user selects stored TV program signal from storage 49 for the super-program to

playing back on television 22 in [0182-0183] }.

Regarding **claims 2, 57, 66**, Ellis teaches the output further comprising audio signal for

sound generating device; signaling a sound generating device with output [the audio output

signal during playing back from digital storage for the speaker of TV 22].

Regarding **claims 3, 56, 65**, Ellis teaches the wherein the output further comprises a

signal for a storage medium [the video output signal 30 for secondary storage 32, Fig. 7].

Regarding **claims 4, 59, 68**, Ellis teaches the wherein the programmable selection

scheme, controlling, further comprises, controlling, a user selectable output of a previously

stored portion of a radio signal [the remote control 40 has programmable selection scheme,

keys, for controlling user selected output from previously stored portions, [0112, 0197; 0180-

0181]].

Regarding **claim 55**, Ellis teaches an method for processing multiple radio signals

simultaneously { the method for interactive television program guide equipment 17, has

recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program 2, Fig. 1-2a, Fig. 7, [0088]; method in Ellis' claims 330-334 },

said method comprising:

continuously receiving at least two unrelated radio signals by at least two receivers of a radio receiver module { more tuners in receiving processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31 of set top 28 or local server 29 in Ellis' claim 344 & [0103]; at the same time for continuously processing for recording separate unrelated program 1, program 2, [0088] };

Simultaneously storing in a buffer at least an audio portion of every unrelated radio signal received by the two radio receivers for later output by selection of a user { at the same time recording from tuners to 15 [0088]; recording all available audio in [0173]; the audio portion of start/end time in Fig. 3; the simultaneously recoding audio of TV program from two tuners to digital storage in Ellis' claim 341}; and

controlling a programmable selection scheme to control functions including received radio signals, stored radio signals and portions thereof, and an output of the stored radio signals and portions thereof { the remote control 40 has programmable control function keypads, for selecting channel to receive radio TV audio signal, for recording via REC key, & output stored TV radio signal & portions using PLAY key for playback in [0112, 0197]; playing back movie segment in [0180-0181};

selecting a stored radio signal from the buffer in the storage module for the output { user selects stored TV program signal from storage 49 for the super-program to playing back on television 22 in [0182-0183]}.

Regarding **claim 64**, Ellis teaches a computer readable medium having instructions thereon [SQL statement & software in [0066-0067, 0076]] for performing steps for

processing multiple radio signals simultaneously { the recorder 125 & processor 11, for

simultaneously processing, storing, program 1 & program 2, Fig. 1-2a, Fig. 7, [0088] },

the steps comprising:

continuously receiving at least two unrelated radio signals by at least two receivers of a

radio receiver module { more tuners in receiving processing 11, [0088] & first, second, tuner

in Ellis' claim 341 & tuners in digital storage 31 of set top 28 or local server 29 in Ellis' claim

344 & [0103]; at the same time for continuously processing for recording separate unrelated

program 1, program 2, [0088] };

Simultaneously storing in a buffer at least an audio portion of every unrelated radio

signal received by the two radio receivers for later output by selection of a user { at the

same time recording from tuners to 15 [0088]; recording all available audio in [0173]; the

audio portion of start/end time in Fig. 3; the simultaneously recoding audio of TV program

from two tuners to digital storage in Ellis' claim 341 }; and

controlling a programmable selection scheme to control functions including received

radio signals, stored radio signals and portions thereof, and an output of the stored radio

signals and portions thereof { the remote control 40 has programmable control function

keypads, for selecting channel to receive radio TV audio signal, for recording via REC key,

& output stored TV radio signal & portions using PLAY key for playback in [0112, 0197];

playing back movie segment in [0180-0181] };

selecting a stored radio signal from the buffer in the storage module for the output { user

selects stored TV program signal from storage 49 for the super-program to playing back on

television 22 in [0182-0183] }.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 5-10, 20, 60-61, 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Morewitz (US 5,457,815).

Regarding **claim 5,** Ellis fails to teach the further features for this claim. Morewitz teaches an apparatus 100, wherein the programmable selection scheme further comprises selecting received radio signals based on pre-selected radio signals [the user enters, reselects, categorical criteria portion, programmable scheme, for station search, col. 4, lines 20-40], in order to upgrade function with pre-selected radio signals. Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis with Morewitz's pre-selected radio signals, in order to upgrade with a better function, pre-selecting the radio signals.

Regarding **claim 6,** Ellis fails to teach the further features for this claim. Morewitz teaches an apparatus 100, wherein the programmable selection scheme further comprises selecting received radio signals based on time of output algorithms [the date code in RDBS in col. 1, lines 30-34, to match. col. 4, line 23-26], using the same reason for combing in claim 5 above.

Regarding **claims 7, 60, 69,** Ellis fails to teach the further features for this claim. Morewitz teaches the wherein the programmable selection scheme further comprises selecting received radio signals based on a sequential scan of available radio signals

[continue to next frequency in col. 46-51] and a storing of each scanned radio signal in a buffer of the storage module up to a buffer limit [the user decide to change frequency & store into long term RAM in col. 5,lines 14-26], and

Simultaneously outputting a selected radio signal [simultaneously re-tune 102 in col. 5, lines 14-20 & outputting the selected match radio signal from standard volume controlled FM radio 102 with audio in col. 3, lines 6-10], using the same reason for combing in claim 5 above.

Regarding **claim 8,** Ellis fails to teach the further features for this claim. Morewitz teaches an apparatus 100 & further comprising a user input module [130] for storing a table of user listening preferences [preferred table for one or more categories in col. 3, lines 38-40 & col. 4, lines 20-25 & col. 5, lines 14-26; the long term RAM 120 stores the list, table of matched stations, if not erase by 126c], using the same reason for combing in claim 5 above.

Regarding **claim 9,** Ellis fails to teach the further features for this claim. Morewitz teaches an apparatus 100 & further comprising a recognition module to recognize an imbedded code in a received radio signal [the matching, recognizing, RDBS code, col. 4, lines 25-40; RDBS category code in col. 1, lines 31-53], using the same reason for combing in claim 5 above.

Regarding **claims 10, 61, 70,** Ellis fails to teach the further features for this claim. Morewitz teaches the apparatus 100 & further comprising a user input module [130, col. 2, lines 60-62 & col. 4, lines 24-26] for storing a table of user listening preferences [previously entered by user & table for one or more categories & other stations in col. 3, lines 38-40 & col. 4, lines 20-25],

wherein the user listening preference identifiers are derivable from the imbedded code [

the RDBS category codes in col. 1, lines 31-53 & col. 4, lines 25-40], thereby enabling an

output based on the user listening preferences [output to FM 102 to match user selected

criteria having more categories & other stations in col. 4, lines 25-40], using the same

reason for combing in claim 5 above.

Regarding **claim 20**, Ellis teaches an apparatus for processing multiple radio signals

simultaneously { apparatus 17, the interactive television program guide equipment, has

recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program

2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving

processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31

of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of

continuously receiving a separate unrelated radio signal { at the same time for continuously

processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least

an audio portion of every radio signal received by two radio receivers for later output by

selection of a user { at the same time recording from tuners to 15 in [0088]; recording all

available audio in [0173]; the simultaneously recoding audio of TV program from two tuners

to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Morewitz teaches (c) a user input module [130, col. 2, lines 60-62] for storing a table of

user listening preferences [storing preferred one or more categories & other stations in col.

4, lines 23-40, the retrieving selected portions from long term memory, in col. 7, lines 23-30,

as the table of preferences]. Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis with Morewitz's user preferred listing preferences, such that user can select preferred listing preferences.

4. Claims 11, 21, 62, 71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in view of Lert, Jr. et al. (US 4,677,466).

Regarding **claim 11,** Ellis teaches an apparatus [Fig. 1-2a], but fail to teach the recognition module.

Lert Jr. et al. (Lert) teaches a radio [Fig. 1, abstract] comprising a recognition module 34 having a set of stored audio signatures to recognize an incoming radio signal [the audio signature extraction 34 is input enabled by event detector 38 to extract audio signature from the digitized audio in col. 4, lines 4-12, & compare with the stored reference signature in data base 62 in col. 4,lines 43-68], in order to identify a broadcast program [col. 3, lines 5-15]. Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis Lert's audio signature extraction, in order to identify a broadcast program.

Regarding **claim 21,** Ellis teaches an apparatus for processing multiple radio signals simultaneously { apparatus 17, the interactive television program guide equipment, has recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program 2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31 of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of

continuously receiving a separate unrelated radio signal { at the same time for continuously

processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least

an audio portion of every radio signal received by two radio receivers for later output by

selection of a user { at the same time recording from tuners to 15 in [0088]; recording all

available audio in [0173]; the simultaneously recoding audio of TV program from two tuners

to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Lert teaches (c) a recognition module [60, Fig. 2, integrated to 10] having a set of stored

audio signatures [reference signature data base 62, 64] to recognize an incoming radio

signal [col. 4,lines 43-68], in order to identify a broadcast program [col. 3, lines 5-15].

Therefore, It would have been obvious to one of ordinary skill in the art at the time of

invention to upgrade Ellis with Lert's audio signature extraction, in order to identify a

broadcast program.

Regarding **claims 62, 71,** Ellis fail to teach the further features in this claim.

Lert teaches recognizing an incoming radio signal from a set of stored audio signatures

[the reference signature data base 62, 64, to recognize an incoming radio signal, col.

4,lines 43-68, in order to identify a broadcast program, col. 3, lines 5-15], using the same

reason in clam 21 above to combine Lert to Ellis.

5. Claims 12-15, 18, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ellis in view of Tuoriniemi et al. (US 5,978,689).

Regarding **claim 12,** Ellis fails to teach the a communication module.

Tuoriniemi et al. (Tuoriniemi) teaches the communication module transmitter 58, receiver 60 & associated circuit of a cellular telephone in Fig. 3, connected to an audio device 68 [Fig. 5, col. 7, line 61 to col. 8, line 4], the audio device 68 can be a digital radio [col. 15, lines 33-35], in order to listen to an audio program while awaiting a telephone call [col. 6, lines 44-54]. Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis with Tuoriniemi's transmitter, receiver, of a telephone which is provided to a digital radio, in order to listen to an audio program while awaiting a telephone call.

Regarding **claim 13,** Ellis teaches an apparatus [Fig. 1-2a]. Tuoriniemi teaches the, wherein the communication module comprises a telephone signal receiver 60 [Fig. 3], an output signal override device [switch 124, 126, 49] and an audio output device speakers 18, 20 & 92],

wherein said output from said storage module [audio device 68 can be CD player in col. 1,lines 36-40] audio output sent to the audio output device, and the override device replaces the audio output with the telephone signal [microprocessor 49 switches to received telephone audio on line 53 via switch 38, & disconnect audio on line 59, col. 9, lines 1-22, Fig. 6], using the same reason in claim 12 above to combine Tuioriniemi to Ellis.

Regarding **claim 14,** Ellis teaches an apparatus [Fig. 1-2a]. Tuoriniemi teaches the wherein the communication module further comprises a message receiver means [receiver means in 22] functioning to receive a personal message addressed to a user [message "MOM CALLING", col. 11, lines11, line 50 to col. 12, line 14], using the same reason in claim 12 above to combine Tuioriniemi to Ellis.

Regarding **claim 15,** Ellis teaches an apparatus [Fig. 1-2a]. Tuoriniemi teaches the

wherein the communication module further comprises a message transmission means transmitter 58, microphone 16 of the headset 10] functioning to send a message [col. 9, lines 13-16], using the same reason in claim 12 above to combine Tuoriniemi to Ellis.

Regarding **claim 18,** Ellis teaches an apparatus [Fig. 1-2a]. Tuoriniemi teaches the wherein the communication module [pager or cellular telephone] further comprises a database receiver 60, the control module further comprises a user preference scheme means functioning to provide the user with an output based on the user's preference scheme [the microcontroller 49 received user preference voice command, "CALL TOM" or "95.5 WPLJ", to be stored, or remove, or updated, in a memory, col. 12, lines 33-42], using the same reason in claim 12 above to combine Tuoriniemi to Ellis.

Regarding **claim 22,** Ellis teaches an apparatus for processing multiple radio signals simultaneously { apparatus 17, the interactive television program guide equipment, has recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program 2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31 of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of receiving a separate radio signal { at the same time for continuously processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store a portion of at least an <u>audio portion of every radio signal received by two radio receivers</u> { at the same time recording from tuners to 15 in [0088]; recording all available audio in [0173]; the

simultaneously recoding audio of TV program from two tuners to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Tuoriniemi teaches (c) a communication module [transmitter, receiver of cellular telephone 22]; wherein the communication module comprises a telephone signal receiver 60, an output signal override device [switch 38 & controller 49] and an audio output device [headset speaker 18 or 20] ,

wherein said output from said storage module [68, CD player or digital radio] is an audio output sent to the audio output device,[18, 20] and the override device replaces the audio output with the telephone signal [the replacing audio output from switch 38 from line 59 for audio device, to line 53 for the audio signal from receiver 60, col. 9, lines 1-22], in order to listen to an audio program while awaiting a telephone call [col. 6, lines 44-54]. Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to update Ellis with Tuoriniemi's transmitter, receiver, of a telephone which is provided to a digital radio, in order to listen to an audio program while awaiting a telephone call.

Regarding **claim 23**, Ellis teaches an apparatus for processing multiple radio signals simultaneously { apparatus 17, the interactive television program guide equipment, has recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program 2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31 of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of

continuously receiving a separate unrelated radio signal { at the same time for continuously

processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least

an <u>audio portion of every radio signal received by two radio receivers</u> for later output by

selection of a user { at the same time recording from tuners to 15 in [0088]; recording all

available audio in [0173]; the simultaneously recoding audio of TV program from two tuners

to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Tuoriniemi teaches (c) a communication module [cellular telephone in Fig. 5-6] wherein

the communication module further comprises a message receiver means 60 functioning to

receive a personal message addressed to a user [message "MOM CALLING", col. 11,

lines11, line 50 to col. 12, line 14], in order to listen to an audio program while awaiting a

personal telephone call [col. 6, lines 44-54]. Therefore, It would have been obvious to one of

ordinary skill in the art at the time of invention to update Ellis with Tuoriniemi's transmitter,

receiver, of a telephone which is provided to a digital radio, in order to listen to an audio

program while awaiting a personal telephone call.

Regarding **claim 24,** Ellis teaches an apparatus for processing multiple radio signals

simultaneously { apparatus 17, the interactive television program guide equipment, has

recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program

2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving

processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31

of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of

continuously receiving a separate unrelated radio signal { at the same time for continuously

processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least

an <u>audio portion of every radio signal received by two radio receivers</u> for later output by

selection of a user { at the same time recording from tuners to 15 in [0088]; recording all

available audio in [0173]; the simultaneously recoding audio of TV program from two tuners

to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Tuoriniemi teaches (c) a communication module [cellular telephone in Fig. 5-6]; wherein

the communication module further comprises a message transmission means functioning to

send a message [transmitter 58, LO 62, switch 40, microphone 94, 16, & associated

circuitry in Fig. 5; col. 9, lines 13-16], in order to listen to an audio program while awaiting a

telephone call for conversation [col. 6, lines 44-54]. Therefore, It would have been obvious

to one of ordinary skill in the art at the time of invention to update Ellis with Tuoriniemi's

transmitter, receiver, of a telephone which is provided to a digital radio, in order to listen to

an audio program while awaiting a telephone call for conversation.

6.   Claims 16-17, 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in

view of Clayton et al. (US 6,725,022 B1).

Regarding **claim 16,** Ellis teaches the apparatus [Fig. 1-2a], but fails to teach the use

history tracking means.

Clayton et al. (Clayton) teaches a use history tracking means functioning to track a use

of the apparatus [the gateway 30, gateway transceiver 130, to track the customer billing

information, to retrieve, access, previously stored information & customer profile, to track the

use of the apparatus via billing information, col. 6, lines 26-37], in order to provide personal

custom information service. Therefore, It would have been obvious to one of ordinary skill in

the art at the time of invention to upgrade Ellis with Clayton's billing information from

gateway receiver, in order to provide personal custom information service.

Regarding **claim 17,** Ellis teaches the apparatus [Fig. 1-2a], but fails to teach the

communication module. Clayton teaches the communication module [transceiver 130, The

apparatus of claim 12, wherein the communication module further comprises a control

module programmable selection scheme parameter receiver [the remotely configure the

multimedia device 20 using gateway network 30 database to download information about all

audio formats & audio broadcasters for user to select desired formats and stations, as the

programmable selection scheme parameter receiver of transceiver 130, col. 6, line 63 to

col.7, line 3], using the same reason in claim 16 to combine Clayton to Morewitz.

Regarding **claim 25,** Ellis teaches an apparatus for processing multiple radio signals

simultaneously { apparatus 17, the interactive television program guide equipment, has

recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program

2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving

processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31

of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of

continuously receiving a separate unrelated radio signal { at the same time for continuously

processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least

an <u>audio portion of every radio signal received by two radio receivers</u> { at the same time

recording from tuners to 15 in [0088]; recording all available audio in [0173]; the

simultaneously recoding audio of TV program from two tuners to digital storage in Ellis' claim

341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Clayton et al. (Clayton) teaches (c) a communication module [gateway transceiver 130 in

Fig. 2, col. 8, lines 29-56]; said communication module further comprising a use history

tracking means functioning to track a use of the apparatus [the utilizing gateway 30,

gateway 130, to track the customer billing information, to retrieve, access, previously stored

information & customer profile, to track the use of the apparatus via billing information, col.

6, lines 26-37], in order to provide personal custom information service. Therefore, It would

have been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis

with Clayton's billing information from gateway receiver, in order to provide more services

such as the personal information.

Regarding **claim 26,** Ellis teaches an apparatus for processing multiple radio signals

simultaneously { apparatus 17, the interactive television program guide equipment, has

recorder 125 & processor 11, for simultaneously processing, storing, program 1 & program

2, Fig. 1-2a, Fig. 7, [0088] },

said apparatus [17, 22, 40 in Fig. 2a, Fig. 7, Fig. 8] comprising:

(a) a radio receiver module having at least two radio receivers { more tuners in receiving

processing 11, [0088] & first, second, tuner in Ellis' claim 341 & tuners in digital storage 31

of set top 28 or local server 29 in Ellis' claim 344 & [0103] }, each receiver capable of

continuously receiving a separate unrelated radio signal { at the same time for continuously

processing for recording separate unrelated program 1, program 2, [0088] } ;

(b) a storage module [15] having a capacity to simultaneously store in a buffer at least

an <u>audio portion of every radio signal received by two radio receivers</u> for later output by

selection of a user { at the same time recording from tuners to 15 in [0088]; recording all

available audio in [0173]; the simultaneously recoding audio of TV program from two tuners

to digital storage in Ellis' claim 341; the audio portion of start/end time in Fig. 3}; and

Ellis fails to teach the features in (c).

Clayton et al. (Clayton) teaches(c) a communication module [gateway transceiver 130 in

Fig. 2, col. 8, lines 29-56]; wherein the communication module further comprises a database

receiver [receiver of the gateway transceiver 130], the control module [50, 90 in col. 8, lines

29-36] further comprises a user preference scheme means functioning to provide the user

with an output [the remotely configure the multimedia device 20 using gateway network 30

database to download information about all audio formats & audio broadcasters for user to

select desired formats and stations, col. 6, line 63 to col.7, line 3], in order to provide

accurate audio broadcast information to user via downloading. Therefore, It would have

been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis with

Clayton's downloading audio format, stations, in order to provide accurate audio broadcast

information to user by downloading.

7. Claims 19, 58, 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis in

view of Otsubo (US 4,953,212).

Regarding **claims 19, 58, 67,** Ellis teaches the apparatus [Fig. 1-2a], but fails to teach

the features for this claim.

Otsubo teaches a signal conditioning module means functioning, conditioning a signal,

to separate a vocal portion from an instrumental portion of the radio signal [the removing

vocal sounds from instrumental accompaniment and substituting the vocal sounds through

microphone, abstract, col. 1, lines 5-15], in order to reuse the instrumental accompaniment

as a back ground music without vocal sound [col. 3, lines 13-20]. Therefore, It would have

been obvious to one of ordinary skill in the art at the time of invention to upgrade Ellis with

Otsubo's removing of vocal sounds from instrument accompaniment, in order to reuse the

instrumental accompaniment as a back ground music without vocal sound.

Claims Objection

8. Claims 63, 72 are objected to as being dependent upon a rejected base claim, but would be

allowable if rewritten in independent form including all of the limitations of the base claim

and any intervening claims. The prior arts fail to teach the multiple functions in the further

comprising a function selected from the group consisting of sending a personal message

addressed to a user, receiving a personal message addressed to a user, downloading audio

content, reporting usage data, receiving a control module programmable selection scheme

parameter, receiving a database, and sending the output to a telephone signal.

Response to Arguments

9. Applicant's arguments with respect to claims 1-26, 55-72 have been considered but are

moot in view of the new ground(s) of rejection.

Regarding applicant's amendment all independent claims & adding new claims 55-72,

based on the no teachings from prior arts, for the <u>simultaneously storing in a buffer at least</u>

<u>an audio portion of every radio signal received by the two radio receivers for later output by</u>

<u>selection of a user</u> [pages 11-13 in applicant amendment, 4/12/2006],

Ellis et al. (UDS 2005/0229,213 A1) teaches these features { the apparatus 17, of the

interactive television program guide equipment, has recorder 125 & processor 11, for

simultaneously processing, storing, program 1 & program 2 in [0088], Fig. 1-2a, Fig. 7, with

the more tuners in receiving processing 11, [0088] or the first, second, tuner as shown Ellis'

claim 341 or tuners in digital storage 31 of set top 28 or local server 29 in view of Ellis' claim

344 & [0103] }.

The each tuner is capable of continuously receiving at the same time of the television

signals for recording separate unrelated program 1, program 2, [0088];

The storage module 15 having a capacity to simultaneously store in a buffer at least an

audio portion of every radio signal received by two radio receivers for later output by

selection of a user { at the same time recording programs from tuners to storage 15 [0088];

the recording all, every, available audio in [0173]; the simultaneously recoding audio of TV

program from two tuners to digital storage in Ellis' claim 341; the audio portion of start/end

time in Fig. 3]; for later output selection using remote module 40 [0112, 0197, Fig. 8]}.

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office

action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the

advisory action. In no event, however, will the statutory period for reply expire later than

SIX MONTHS from the date of this final action.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Charles Chow whose telephone number is (571) 272-7889. The

examiner can normally be reached on 8:00am-5:30pm. If attempts to reach the examiner by

telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on

(571) 272-7899. The fax phone number for the organization where this application or

proceeding is assigned is (571) 273-8300. Information regarding the status of an application

may be obtained from the Patent Application Information Retrieval (PAIR) system. Status

information for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free).

Charles Chow Ċ.Ċ.

May 4, 2006.

EDWARD F. URBAN
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